

REMARKS

Applicants respectfully request entry of the foregoing and reconsideration of the subject matter identified in caption, as amended, pursuant to and consistent with 37 C.F.R. § 1.116, and in light of the remarks which follow.

Claims 66-175 are pending in the application. Claims 174 and 175 having been added above.

By the above amendments, claim 66 has been amended by inserting the language "a one-step emulsifying-and-blocking reaction" to further clarify that the claimed process is a single-operation process wherein both emulsifying and blocking are conducted simultaneously. Support for this amendment can be found at least at page 5, lines 13-19. Claim 118 has been amended to read, in part, "... an ionic surfactant in contact with at least one blocking agent ..." Claims 147-154 have been amended to more clearly reflect their dependence on process claim 66. Claim 155 has been amended to read, in part, "... comprises less than 50%, by mass, of water relative to emulsion." Also, new claims 174 and 175 are added to further define exemplary embodiments. Support for new claims 174 and 175 can be found at least at page 6, lines 12-15.

Turning now to the Official Action, Applicants understand that the Action was made final even though it is a first action in the case because it is believed that "all claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on grounds and art of record in the next Office Action if they had been entered in the earlier action." See Official Action at page 4, item 7. Applicants respectfully disagree.

In particular, the MPEP states that a second or subsequent action on the merits "shall be final, except where the Examiner introduces a new ground of rejection not necessitated by amendment of the application by Applicant, whether or not the prior art is already of record." See MPEP § 706.07(a).

Claim 66, reciting "conducting a one-step emulsion-and-blocking reaction" was first submitted for examination in the Preliminary Amendment filed on March 24, 2003. Because no claim in the application previously recited conducting a one-step emulsion-and-blocking reaction," Applicants submit that the claims now include features not expressly recited in the claims previously examined. Accordingly, Applicants submit that because claim 66, in its present form, has never been examined, the present Official Action does not constitute a "second or subsequent action on the merits" as required by MPEP § 706.07(a).

Moreover, the finality of the instant Official Action is inconsistent with MPEP § 706.07, which states that in discussing the reasons for making an unofficial action final, "the Applicant who is seeking to define his or her invention in claims that will give him or her the patent protection to which he or she is justly entitled should receive the cooperation of the Examiner to that end, and not be prematurely cut off in the prosecution of his or her case."

For at least these reasons, and in accordance with the requirements of MPEP § 706.07, Applicants respectfully submit that the finality of the instant Official Action is premature and should be withdrawn.

Claims 66-146 and 155-173 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Tirpak (U.S. Patent No. 5,300,556). For at least the reasons that follow, withdrawal of the rejection is in order.

The present invention relates to a process for the emulsion synthesis of blocked (poly)isocyanates, to the emulsions thus obtained, to their use in order to make compositions which are useful for coating surfaces and to the coatings thus obtained. See specification at page 1, lines 4-7.

Claim 66, for example, as amended above, defines a process for preparing an oil-in-water emulsion of blocked (poly)isocyanates, the process comprising conducting a one-step emulsifying-and-blocking reaction by placing an isocyanate composition comprising free isocyanate functions in contact with at least one blocking agent A in the presence of a surfactant B and an aqueous phase, the isocyanate composition being gradually added to a stock containing at least some of the aqueous phase and at least some of the blocking agent so that the content of free isocyanate functions is equal to not more than 2 equivalents per kilogram in the isocyanate phase.

Claim 118, as amended above, recites a method of blocking isocyanates, the method comprising placing an ionic surfactant in contact with at least one blocking agent and an aqueous phase in an emulsion, wherein the surfactant comprises a hydrophilic part containing an anionic function selected from the group consisting of a phosphate, a phosphonate and a phosphinate group, and at least one of a polyethylene glycol chain

fragment and a polypropylene glycol chain fragment and a lipophilic part selected from the group consisting of an alkyl group and an aryl group.

Claim 155, as amended above, defines a composition comprising a blocked polyisocyanate emulsion, comprising a hydrophilic part formed of an anionic function selected from the group consisting of a phosphate, a phosphonate, and a phosphinate group and at least one of a polyethylene glycol chain fragment and a polypropylene glycol chain fragment, and a lipophilic part selected from the group consisting of an alkyl group and an aryl group, wherein the composition comprises less than 50%, by mass, of water relative to the emulsion.

Tirpak relates to an improved process for the preparation of aqueous dispersions containing both blocked (poly)isocyanates and polyhydroxyl compound. See Tirpak at column 1, lines 11-15.

It is well established that in order to demonstrate anticipation under § 102(b), each element of the claim in issue must be found, either expressly described or under principles of inherency, in a single prior art reference. See Kalman v. Kimberly-Clark, 218 USPQ 789 (Fed. Cir. 1983). That is not the case here.

Tirpak does not disclose or fairly suggest each feature of claims 66, 118 or 155. In particular, the process of claim 66 is a process for the preparation of an oil-in-water emulsion of blocked polyisocyanates that includes a one-step emulsifying-and-blocking reaction. In stark contrast, Tirpak fails to disclose or fairly suggest a one-step emulsifying-and-blocking reaction. In fact, Tirpak appears to teach away from performing a one-step

emulsifying-and-blocking reaction. For example, at column 4, lines 60-65, Tirpak discloses conducting separate emulsion and blocking steps. That is, Tirpak states "After the polyisocyanates have been disposed in water, at least a portion of the isocyanate groups are reacted with a monofunctional blocking agent" Thus, Applicants submit that the process of claim 66 and the claims depending therefrom are patentable over Tirpak.

Applicants submit that, the process of claim 118 is also patentable over Tirpak. That is, Applicants submit that Tirpak does not disclose or suggest placing an ionic surfactant in contact with at least one blocking agent and an aqueous phase in an emulsion, wherein the surfactant comprises a specific hydrophilic part, as defined in claim 118.

In addition, Applicants submit that Tirpak does not anticipate the composition of claim 155. That is, claim 155 recites "... wherein the composition comprises less than 50%, by mass, of water relative to the emulsion." In contrast, Tirpak discloses a water content of 50-95%. For example, Tirpak at col. 4, lines 57-59 discloses a solids content of about 2-50 weight percent.

For at least these reasons, the processes of claims 66 and 118 and the composition of claim 155 are not anticipated by Tirpak. In addition, because claims 67-117 and 147-154, 119-146 and 156-173 are depend, directly or indirectly, from claims 66, 118 and 155, respectively, these claims are also patentable over Tirpak for at least the reasons that claims 66, 118 and 155 are patentable thereover. Applicants respectfully request reconsideration and withdrawal of the rejection.

Claims 66-146 and 155-173 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tirpak in view of Yasuda (EP 367667). For at least the reasons that follow, withdrawal of the rejection is in order.

For at least the reasons set forth above with respect to the § 102(b) rejection of claims 66-146 and 155-173 over Tirpak, Applicants submit that claims 66-146 and 155-173 also would not have been obvious over Tirpak, either alone or in combination with Yasuda.

In particular, to establish a *prima facie* case of obviousness, the prior art references (or references when combined) must teach or suggest all of the claim limitations. See *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). In addition, "all words in a claim must be considered in judging the patentability of that claim against the prior art." See *In re Wilson*, 424 F.2d 1382, 1385; 165 USPQ 494, 496 (CCPA 1970). See MPEP § 2143.03.

As explained above, Tirpak fails to disclose or fairly suggest a process that includes conducting a one-step emulsifying-and-blocking reaction, as recited in independent claim 66. In fact, as pointed out above, Tirpak discloses conducting separate emulsifying and blocking steps.

Yasuda fails to overcome the deficiencies of Tirpak. Yasuda relates to a new polyurethane resin containing at least one phosphoric acid group and its use in a magnetic coating formulation and a magnetic recording medium. The magnetic recording medium can include, for example, magnetic tapes, magnetic disks, magnetic cards and the like. See Yasuda at page 2, lines 1-3.

Yasuda discloses using phosphoric-acid-modified polyurethane resin as a dispersion material for magnetic particles. However, the combination of this teaching with Tirpak does not render obvious the one-step emulsifying-and-blocking reaction step defined in independent claim 66. Accordingly, even if one were to combine Tirpak and Yasuda, one would not arrive at the method of independent claim 66.

Furthermore, the combination of Tirpak in view of Yasuda does not reflect a proper consideration of "all words" in the claim. In particular, because neither of the cited references discloses or suggests a reaction that includes a one-step emulsifying-and-blocking reaction step, Applicants submit that the Official Action has not given full consideration to all claim limitations, i.e., patentable weight must be given to "a one-step emulsifying-and-blocking reaction" in claim 66 in judging the patentability of claim 66 over Tirpak and Yasuda.

Also, for at least the reasons set forth above, the process of claim 118 and the composition of claim 155 would not have been obvious over Tirpak. That is, Tirpak fails to disclose or suggest placing an ionic surfactant in contact with at least one blocking agent and an aqueous phase in an emulsion, as defined in claim 118, or a composition comprising less than 50%, by mass, water relative to the emulsion, as defined in claim 155.

Yasuda fails to overcome these deficiencies and/or provide requisite motivation to modify Tirpak to arrive at the claimed inventions. In particular, with respect to the process of claim 118, Yasuda relates to preparing a dispersion of solid particles wherein the continuous phase is the organic material (the oil), namely a polyurethane resin. Thus,

Applicants submit that because Yasuda is directed to providing a dispersion of solid particles, no person of ordinary skill in the art would have looked to Yasuda for a surfactant to be used in preparing an oil-in-water-dispersion (as in Tirpak).

Also, with respect to the composition of claim 155, Yasuda only discloses a phosphorus-containing compound (i.e., "a polyisocyanate emulsifier). Applicants submit that, the combination of Tirpak and Yasuda would not lead one to arrive at the composition of claim 155 comprising less than 50%, by mass, water (i.e., a low content of water and a high content of blocked polyisocyanate functions).

For at least these reasons, claims 66, 118 and 155 are patentable over the combination of Tirpak in view of Yasuda. Also, because claims 67-117, 119-146 and 156-173 all depend, either directly or indirectly, from independent claims 66, 118 and 155, these claims necessarily include all of the limitations of claims 66, 118 and 155. Thus, claims 67-117, 119-146 and 156-173 are also patentable over Tirpak in view of Yasuda for at least the reasons that claims 66, 118 and 155 are patentable thereover. Applicants respectfully request reconsideration and withdrawal of the rejection.

Claims 147-154 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Anand (U.S. Patent No. 5,037,864) and Markusch (U.S. Patent No. 4,879,322). Applicants have amended claims 147-154 to more clearly distinguish the claims from the cited references. In particular, Applicants have amended these claims to more clearly reflect their dependence on method claim 66.

Because claims 147-154 depend on claim 66, claims 147-154 necessarily include all of the limitations of independent claim 66. Accordingly, even if the plant depicted in the figures of Anand and Markusch were to disclose the plant defined in claims 147-154, claims 147-154 would not have been obvious over the combination of Anand and Markusch.

In particular, as explained above, to establish a *prima facie* case of obviousness, the prior art references (or references when combined) must teach or suggest all of the claim limitations. See In re Royka. In the instant rejection, however, neither Anand nor Markusch, alone or in combination, disclose or fairly suggest a process that includes a one-step emulsifying-and-blocking reaction, as defined in claim 66. Furthermore, the combination of Anand and Markusch does not reflect a proper consideration of "all words" in the claim (including all of the words of claim 66, from which claims 147-154 depend). In particular, because neither of the cited references disclose or suggest a method including a one-step emulsifying-and-blocking reaction, Applicants submit that the Official Action has not given full consideration to all claim limitations, i.e., patentable weight must be given to the words "a one-step emulsifying-and-blocking reaction" in claim 66 in judging the patentability of claims 147-154 over Anand and Markusch.

For at least these reasons, claims 147-154 are patentable over the combination of Anand and Markusch. Applicants respectfully request reconsideration and withdrawal of the rejection.

From the foregoing, Applicants earnestly solicit further and favorable action in the form of a Notice of Allowance. If there are any questions concerning this paper or the application in general, Applicants invite the Examiner to telephone the undersigned at the Examiner's earliest convenience.

Respectfully submitted,

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